- 17. The recording material according to claim 16, wherein the radiation-sensitive layer comprises a combination of a polymerizable monomer or oligomer and a photopolymerization initiator.
- The recording material according to claim 16, wherein the sulphobetaine is of the formula

$$R^{2} \xrightarrow{R^{1}} N^{+} \longrightarrow R^{4} \longrightarrow SO_{3} \qquad (I)$$

in which

R1 to R3 are identical or different and are substituted or unsubstituted and/or mono- or polyunsaturated, acyclic or isocyclic hydrocarbon radicals having from 1 to 16 carbon atoms, in which one or more methylene groups is optionally replaced by -O-, -S-, -NH-, -CO-NH- and/or -O-CO-NH-groups, and, in the case of the acyclic radicals, each two thereof is optionally linked to one another to form a saturated or unsaturated ring, and

 R^4 is a substituted or unsubstituted (C₁-C₆) alkanediyl group.

- The recording material according to claim 18, wherein at least one of the radicals R¹ to 19. R³ is a methyl radical.
- The recording material according to claim 18, wherein two of the radicals R¹ to R³ are 20. linked to one another with formation of a five- to seven-membered ring.
- The recording material according to claim 18, wherein the radical R⁴ is a substituted or 21. unsubstituted ethane-1,2-diyl, propane-1,3-diyl or butane-1,4-diyl radical.
- 22. The recording material according to claim 16, wherein the proportion of the sulphobetaine is from 1 to 15% by weight, based on the total weight of the non-volatile constituents of the radiation-sensitive layer.
- 23. The recording material according to claim 16, wherein the radiation-sensitive layer has been colored using dyes and/or pigments.

- '24. The recording material according to claim 16, wherein the diazonium salt is a condensation product of an aromatic diazonium salt.
- 25. The recording material according to claim 16, wherein the weight of the radiation-sensitive layer when dried is from 0.3 to 3.0 g/m^2 .
- 26. The recording material according to claim 16, wherein the material is pigmented or matted.
- 27. The recording material according to claim 16, wherein the support is a plate, a film, a foil or a band of metal, plastic or a plastic/metal laminate.
- 28. The recording material according to claim 27, wherein the support is an aluminum or an aluminum alloy, and at least one side of the support has been mechanically, chemically and/or electrochemically roughened, and optionally anodically oxidized and/or chemically aftertreated.
- 29. The recording material according to claim 16, wherein the support has been provided with a back coating of polymeric materials.
- 30. A process for the production of a printing plate for offset printing, which comprises exposing imagewise the recording material according to claim 16, and subsequently developing using an aqueous-alkaline developer.
- 31. The recording material according to claim 20, wherein two of the radicals R¹ to R⁴ are linked to one another to form a morpholinium ring or a pyridinium ring.
- 32. The recording material according to claim 21, wherein the proportion of the sulphobetaine is from 2 to 10% by weight based on the total weight of the non-volatile constituents of the radiation-sensitive layer.
- 33. The recording material according to claim 32, wherein the weight of the radiation-sensitive layer when dried is from 0.5 to 2.0 g/m².
- 34. The recording material according to claim 32, wherein the weight of the radiation-sensitive layer when dried is from 0.6 to 1.6 g/m^2 . --